Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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CROP REPORT FOR WEEK ENDING APRIL 30

Field activities were slow early in the period, but corn and soybean planting was in full swing by mid-week in most areas of the State, according to the Indiana Agricultural Statistics Service. Corn planting is 10 days ahead of average and only 2 days behind the record pace established in 1988. Soybean planting is more than a week ahead of average.

CORN AND SOYBEANS

Thirty-five percent of the **corn** acreage is planted compared with 9 percent last year and 14 percent for the 5-year average. By area, corn planting is 30 percent complete in the north, 41 percent complete in the central and 31 percent complete in the south. Ten percent of the **soybean** acreage is planted compared with 3 percent last year and 4 percent for the average. Farmers continued to apply fertilizer and nitrogen, prepare soils and spread chemicals.

WINTER WHEAT

Ninety-eight percent of the **winter wheat** acreage is **jointed**, compared with 87 percent last year and 71 percent for the 5-year average. Wheat condition remained virtually unchanged from a week earlier. Winter wheat **condition** is rated 75 percent good to excellent, compared with 85 percent at this time a year ago.

OTHER CROPS AND LIVESTOCK

Availability of hay and roughage supplies was rated 5 percent surplus, 73 percent adequate 18 percent short and 4 percent very short. **Pasture condition** was rated 8 percent excellent, 46 percent good, 32 percent fair, 10 percent poor and 4 percent very poor. Livestock are in mostly good condition. Calving remains active.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 4.3 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 6 percent very short, 18 percent short, 67 percent adequate and 9 percent surplus. **Subsoil moisture** was rated 16 percent very short, 39 percent short, 41 percent adequate and 4 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Corn Planted	35	11	9	14
Soybeans Planted	10	2	3	4
Winter Wheat Jointed	98	80	87	71
Winter Wheat Headed	13	0	2	3

CROP CONDITION

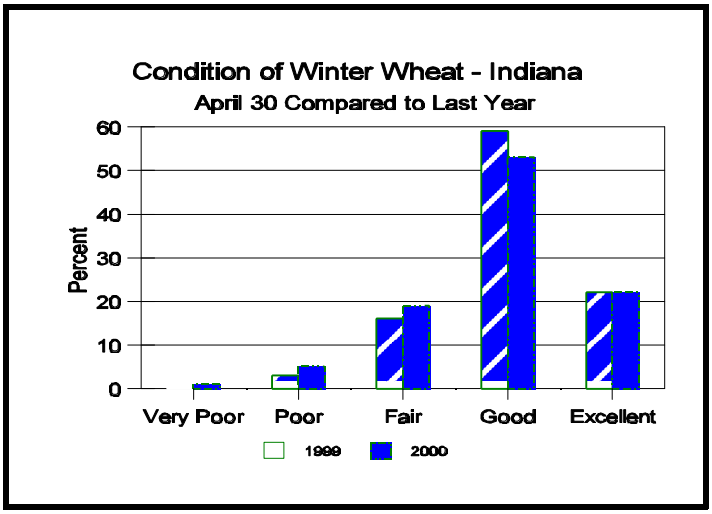
Crop	Very Poor	Poor	Fair	Good	Excel-lent
			Percent		
Winter Wheat 4/30	1	5	19	53	22
Winter Wheat 4/23	1	4	20	54	21
Winter Wheat 1999	0	2	13	62	23
Pasture	4	10	32	46	8

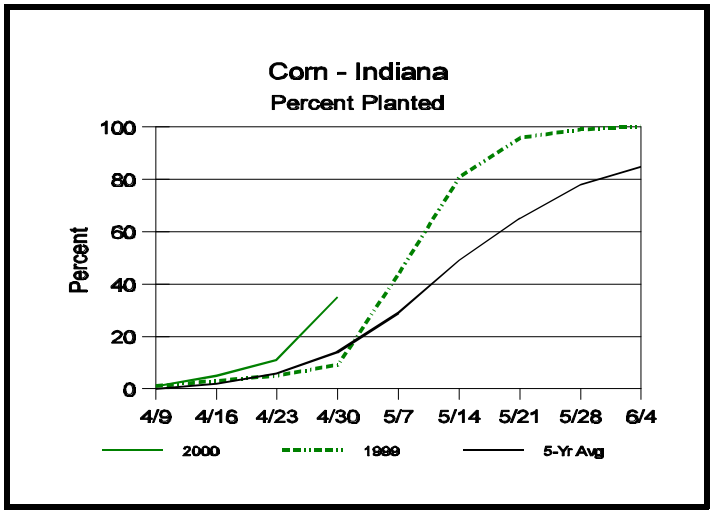
SOIL MOISTURE

	This Week	Last Week	Last Year
		Percent	
Topsoil			
Very Short	6	3	0
Short	18	13	1
Adequate	67	66	49
Surplus	9	18	50
Subsoil			
Very Short	16	15	0
Short	39	39	5
Adequate	41	43	63
Surplus	4	3	32

--Ralph W. Gann, State Statistician
–Bud Bever, Agricultural Statistician
E-Mail Address: nass-in@nass.usda.gov
http://info.aes.purdue.edu/agstat/nass.html

Crop Progress





Planning for the 2000 Soybean Crop

✓ Managing the 2000 Soybean Crop With Weather in Mind

Much of the coffee shop talk these days revolves around the potential impact of La Nina on the 2000 Indiana soybean crop. Since the first of the year, several individuals have contacted me regarding modifications in their plans for the 2000 soybean crop based on bad weather fears. From what I have heard and read, there is less than unanimous agreement on La Nina's impact on the 2000 growing season. The one fact that is certain today is the unusually dry soil conditions that exist across northern and central Indiana for this time of year. Will these conditions continue? Let's hope that they don't. The National Weather Service issued a statement on Monday March 13 that no relief is insight at the present time. Normally, much of our subsoil recharge occurs with the March and April rains.

The 2000 growing season could be very similar to normal, or it could vary significantly from normal. Therefore, to try to plan for a growing season quite different from normal is a major gamble. We must remember that a normal growing season is nothing more than the average of all growing seasons of all the years for which weather data is available. Each growing season could, and in most cases does, vary from normal. Our big concern today is to what extent will it vary from normal in 2000.

In my opinion, since we do not have a clear view of the 2000 weather pattern, we should treat this year as any other normal year. Furthermore, I suggest that the soybean production system adopted for this year be one designed to utilize best management practices to maximize an economic yield of the crop. I hear three things being discussed as possible areas where farmers may attempt to make modifications in their production system. These include changing maturity group, planting date, and seeding rate.

The variety selected should be a full season variety for your geographic area with good disease resistance and yielding ability. An attempt to change to an earlier or later maturing variety could spell disaster. An early maturing variety does not have the ability to fully compensate for late July and August rains while a full season variety can respond nicely to these late rains. The 1997 growing season is a good reminder of the risk of using early season varieties. In many instances, the early maturing varieties had greatly reduced yields because they had ceased flowering when the late August 1997 reins came and could not compensate. The 1999 growing season is a good illustration of the impact of a drier than normal July, August, and September on the performance of varieties that mature later than full season varieties. In general, the later maturing varieties yielded less than full season varieties in 1999. If you can guess correctly on the timing of a dry period during the growing season, then you could change the maturity group to your advantage.

The period between May 5 and May 20 is the ideal window to plant soybeans most years in Indiana. Planting earlier than April 25 or later than June 5 usually results in a significant yield reduction. We

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Weather Data

Week ending Sunday April 30, 2000

Station	Past Week Weather Summary Data							Accumulation				
			Air Temperature		Precip.		Avg 4 in Soil Temp	April 1, 2000 thru April 30, 2000				
								Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days		Total	DFN	Days	Total	DFN
Northwest (1)												
Valparaiso_Ag	69	35	51	-4	0.11	1		4.16	+0.19	12	44	-44
Wanatah	70	32	49	-4	0.10	1	59	3.87	+0.06	10	43	-25
Wheatfield	72	32	51	-3	0.12	1		3.08	-0.70	11	54	-19
Winamac	69	33	51	-4	0.02	1	58	2.62	-1.07	7	55	-39
North Central (2)												
Logansport	71	35	53	-2	0.06	1		1.77	-1.71	13	73	-17
Plymouth	68	33	50	-5	0.15	1		4.39	+0.51	11	50	-53
South_Bend	69	31	50	-5	0.09	1		3.71	-0.10	15	52	-26
Young_America	72	36	54	-1	0.00	0		1.20	-2.28	9	102	+12
Northeast (3)												
Bluffton	70	35	53	-2	0.04	1	50	2.39	-1.31	9	76	-21
Fort_Wayne	71	33	52	-2	0.02	1		2.09	-1.29	9	75	-9
West Central (4)												
Crawfordsville	71	31	51	-6	0.04	1	55	1.87	-2.25	11	61	-69
Perrysville	71	34	53	-3	0.12	1	58	2.11	-1.77	6	85	-29
Terre_Haute_Ag	72	37	56	-2	0.30	2	59	3.18	-0.72	10	118	-22
W_Lafayette_6NW	71	31	53	-3	0.00	0	57	1.06	-2.67	8	92	-3
Central (5)												
Castleton	70	36	54	-3	0.05	1		3.41	-0.37	13	93	-26
Greenfield	70	36	54	-3	0.02	1		4.10	+0.06	14	98	-9
Greensburg	70	37	54	-3	0.02	1		4.80	+0.72	12	100	-21
Indianapolis_AP	70	39	55	-2	0.07	1		3.80	+0.10	13	125	-5
Indianapolis_SE	69	35	53	-3	0.00	0		4.05	+0.27	9	91	-28
Tipton_Ag	70	33	52	-3	0.00	0	56	1.12	-2.78	10	66	-10
East Central (6)												
Farmland	71	30	52	-3	0.00	0	51	4.45	+0.87	13	68	-3
New_Castle	68	34	50	-4	0.00	0		3.77	-0.32	14	47	-28
Southwest (7)												
Dubois_Ag	71	36	55	-3	0.22	3	59	3.55	-0.64	14	146	-20
Evansville	72	38	56	-5	0.58	3		2.36	-1.67	9	179	-36
Freelandville	72	41	55	-3	0.21	1		4.19	+0.30	8	119	-37
Shoals	73	34	54	-4	0.17	3		2.96	-1.15	12	106	-48
Vincennes_5NE	74	38	55	-3	0.32	2	56	2.72	-1.17	11	120	-36
South Central (8)												
Bloomington	72	35	54	-4	0.00	0		3.87	-0.05	9	100	-54
Tell_City	71	39	55	-5	0.26	2		2.69	-2.11	9	154	-38
Southeast (9)												
Scottsburg	72	35	54	-5	0.16	1		4.42	+0.25	10	120	-37

DFN = Departure From Normal (Using 1961-90 Normals Period).
GDD = Growing Degree Days.
Precipitation (rain or melted snow/ice) in inches.
Precipitation Days = Days with precipitation of 0.01 inch or more.
Air Temperatures in Degrees Fahrenheit.

The above weather information is provided by AWIS, Inc.
For detailed ag weather forecasts and data visit the AWIS home page at
www.awis.com or call toll free at 1-888-798-9955.

need to remember that full season varieties planted on or before May 20 will usually begin flowering on approximately the same day whether planted in April or May. The idea that planting early will result in significantly earlier reproductive development of the soybean plant is false.

When the time arrives for planting and the soil is unusually dry, I would still recommend that you go ahead and plant and wait for the rain. This approach is superior to waiting for rain, and then waiting even longer for the soil to dry before soybeans can be planted.

Seeding rate should not be altered in anticipations of weather events. A population of 165,000 plants per acre in drilled soybeans is considered a perfect stand and would require a seeding rate of 200,000 seeds per acre. With a 30 inch row spacing, a perfect stand would be 105,000 plants per acre with a seeding rate of 130,000 seeds per acre. A 15 inch row spacing will require a seeding rate of 165,000 seeds per acre to give a perfect stand of 130,000 plants per acre. Much of the 2000 soybean seed supply was produced in areas with rainfall deficits in 1999 and therefore has a higher seed count per pound than normal. It will pay to calibrate drills and planters with the seed that you will be planting this year, and to check the calibration as you move from one seed lot to the next. Remember that over seeding by 5 pounds per acre on 100 acres is equal to 10 units of soybean seed. Proper calibration and seeding rates can result in input costs savings.

The bottom line is that with the forecast information available today, we should plan for a near normal growing season and develop our production system accordingly.

Continuous Soybeans

Another issue receiving wide discussion this winter revolves around the desire to grow soybeans following soybeans or the production of continuous soybeans. A number of factors need to be considered before that decision can be made. The first very important piece of information that you need is your cost of production of both corn and soybeans. With these figures, you can now begin to determine the most profitable mix of crops for 2000. Factors that must be considered include:

1.) yield loss from continuous vs. rotational soybeans
2.) input costs for both corn and soybeans, and areas where these costs can be reduced
3.) local loan rate for soybeans
4.) potential impact of continuous soybeans of future production problems.

Long-term yield data from the Purdue Agronomy Research Center, for a 25 year period, indicate that the average yield of rotational soybeans for this period was 50.8 bu/ac while continuous soybeans yielded 46.2 by/ac or a reduction of about 10%. In the last 10 years of this study, the rotational vs. continuous soybean yielded 52.03 and 45.61 bu/ac respectively or a reduction of 12 %. The last 5 years show rotational vs. continuous soybean yields of 51.2 and 43.62 bu/ac respectively or a reduction of 15%. During this 26 year period, only 5 years gave a yield reduction of 5% or less for the continuous soybeans when compared to rotational soybeans. From this data, I conclude that a yield reduction of at least 10% can be expected if a continuous soybean production system replaces a rotational system, and that for the last 5 years the reduction has averaged 15%.

Input costs for soybeans are usually less than for corn. If cash flow is a concern and costs need to be kept to a minimum, then continuous soybeans may look attractive. If soil fertility levels are high, an application of fertilizer could be omitted this year. However, you must keep close tabs on the soil test levels and don't let them fall below the critical level or yields could tumble. Soil pH levels should be corrected if soil tests indicate an acid condition. If you draw down the level of nutrients in the soil, then you will need to build them back in the future. Remember, avoiding the application of fertilizer for one or two years is not a free meal.

The local loan rate for soybean is the floor under the local soybean market price. Knowing your input costs, yield reduction from continuous soybeans and the soybean loan rate you can begin to get a better feel for your crop mix.

A major concern that I have regarding the production of continuous soybeans, is the potential for a rapid build-up in the population of soybean cyst nematode. If a small number of soybean cyst nematodes are present in a field, continuous production of soybeans will result in a rapid increase in the population to a level that could have a negative impact on yield for a number of years to come. Is this gamble worth the long-term risk? If a decision is made to produce soybeans for a second year, I would urge you to take a soil sample and have it analyzed for soybean cyst nematode. Then manage the field accordingly. Your local extension office has information on taking and submitting soil samples for nematode determination.

- **Bin-Run Seed**

A number of producers have inquired regarding the use of bin-run seed in 2000. My first work of **caution** relates to the use of patented herbicide tolerant see, such as the glyphosate tolerant varieties. These varieties **CANNOT** legally be saved for use as seed. Other varieties registered under the plant variety protection act may be saved and used **ONLY** by the original producer and cannot be sold as seed to others.

In most years, the use of bin-run seed, if handled properly, saves very little money. The initial cost of the seed is the price at which you could have sold it at harvest. You then must add to this the costs of storage, seed cleaning, testing for germination and clean out. An additional cost that should be considered is the potential for reduced yields. A study conducted in the 1980s at Purdue, using two public varieties, showed that bin-run seed resulted in a yield reduction of one bushel per acre compared to certified seed of the same variety.

If one is determined to use bin-run seed in 2000, the following points should be considered:

a.) The seed should have been harvested at 12 to 13 % moisture to minimize mechanical damage to the seed

b.) Secure a warm germination test before and after cleaning and , if possible, also obtain either a cold germination test or an accelerated aging test to evaluate vigor

c.) Clean the seed to remove splits, weed seed, and foreign material

d.) Handle the seed as gently as possible to avoid additional mechanical damage

e.) **DO NOT save and replant seed of patented varieties.**

–Ellsworth P. Christmas, Purdue University

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